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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,451

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EXAMINER

ZOLLINGER, NATHAN C

ART UNIT

PAPER NUMBER

3746

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,451	Applicant(s) AMANO, RYUICHIRO	
	Examiner NATHAN ZOLLINGER	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Response to Amendment

Applicant's amendments filed on June 16, 2009 have been entered. Claims 1 and 5 have been amended while claims 2-3 have been cancelled. Claim 6 is newly added. Claims 1 and 4-6 are therefore pending in this application. Additionally, the objection to the specifications is also withdrawn in light of corrections made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchibori et al. (US 5,666,015) in view of Kost (US 2,321,755) and in further view of Neill (US 3,505,923).

Claim 1: Uchibori discloses a compressor, comprising a closed container (1) a compressor element section (3) housed in a lower portion of the closed container, and an electric motor element section (2) housed in an upper portion of the closed container, and including a rotor (5) a stator (4) disposed on an outer periphery of the rotor, an end plate (30) provided on an end surface of the rotor, and an oil separation plate (26) installed on the end plate and forming a through hole (Fig. 1, end regions of 26), the end

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plate including a main section (30), and a projection (31) projecting from the main section and fitted in the through hole, the projection including a projected part projected from the through hole of the oil separation plate. Uchibori does not disclose that the projection is crushed to integrate the oil separation plate (26) with the end plate (30). However, Kost teaches a crushed projection (Fig. 3). Specifically, Kost teaches inserting a projection into an aperture of a plate and then crushing the projection to create a connection, which operation simplifies the fastening process (col. 1, lines 5-19). It would be obvious to employ crushed projections as taught by Kost into the compressor of Uchibori in order to secure the oil plate and simplify the process of attaching the oil plate to the end plate. Additionally, Uchibori does not disclose a recess on an upper face of the projection and which has a cone shape with a diameter that gradually decreases downward. Neill teaches a projection with a cone shape recess (Fig. 4). Specifically, Neill teaches a projection with a conical recess (col. 3, lines 17-19, 27), which recess acts to cause a uniform flow of material throughout the projection, improving the strength of the projection (col. 3, lines 48-63). It would be obvious to employ a conical recess as taught by Neill into the projection disclosed by Uchibori as modified by Kost in order to increase the strength of the projection. Additionally, Uchibori do not disclose a compressor wherein the projection is partly crushed to remain a portion of the recess. Neill teaches such a feature. Specifically, Neill teaches that maintaining a recess on the projection, including after being crushed, prevents the head portion from being at an undue thickness near the collar section (col. 3, lines 49-51) ensuring that a uniform flow of material exists throughout the fastener, which

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improves the overall strength of the projection and avoid commonly encountered fracture lines (Figs. 4-5, col. 3, lines 49-63). It would be obvious to utilize a recess remaining in the projection as taught by Neill into the projection of Uchibori as modified by Kost in order to maintain the strength of the projection.

Claim 4: Uchibori, Kost and Neill disclose the limitations of claim 1, discussed previously. Uchibori also discloses a compressor wherein a material of the projection is made from aluminum (col. 6, lines 40-43).

Claim 5: Uchibori discloses a method of plate installation comprising mounting a plate member (26) on a supporting base plate (30) by fitting a projection (31) of the supporting base plate into a through hole of the plate member to project a top end part of the projection from the through hole (col. 6, lines 45-47), the plate and projection being made from aluminum (col. 6, lines 40-43). Uchibori does not disclose crushing a projected part of the projection from the through hole so as to integrate the plate member with the supporting base plate. However, Kost teaches such a feature. Specifically, Kost teaches inserting a projection into an aperture of another plate and then crushing the projection to create a connection, which operation simplifies the fastening process (col. 1, lines 5-19). It would be obvious to employ crushed projections as taught by Kost into the compressor of Uchibori in order to secure the oil plate and simplify the process of attaching the oil plate to the end plate. Additionally, Uchibori does not disclose a projection with a cone shaped recess that partially remains after crushing. However, Neill teaches such a disclosure. Specifically, Neill teaches a projection with a conical recess (col. 3, lines 17-19, 27), which recess acts to cause a

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uniform flow of material throughout the projection, improving the strength of the projection (col. 3, lines 48-63). Moreover, maintaining a recess on the projection, including after being crushed, prevents the head portion from being at an undue thickness near the collar section (col. 3, lines 49-51) ensuring that a uniform flow of material exists throughout the fastener, which improves the overall strength of the projection and avoid commonly encountered fracture lines (Figs. 4-5, col. 3, lines 49-63). It would be obvious to utilize a cone shaped recess remaining in the projection as taught by Neill into the projection of Uchibori as modified by Kost in order to maintain the strength of the projection.

Claim 6: Uchibori discloses a compressor, comprising a closed container (1) a compressor element section (3) housed in a lower portion of the closed container, and an electric motor element section (2) housed in an upper portion of the closed container, and including a rotor (5) a stator (4) disposed on an outer periphery of the rotor, an end plate (30) provided on an end surface of the rotor, and an oil separation plate (26) installed on the end plate and forming a through hole (Fig. 1, end regions of 26), the end plate including a main section (30), and a projection (31) projecting from the main section and fitted in the through hole, the projection including a projected part projected from the through hole of the oil separation plate. Uchibori does not disclose that the projection is crushed to integrate the oil separation plate (26) with the end plate (30). However, Kost teaches a crushed projection (Fig. 3). Specifically, Kost teaches inserting a projection into an aperture of a plate and then crushing the projection to create a connection, which operation simplifies the fastening process (col. 1, lines 5-19).

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It would be obvious to employ crushed projections as taught by Kost into the compressor of Uchibori in order to secure the oil plate and simplify the process of attaching the oil plate to the end plate. Additionally, Uchibori does not disclose a recess on an upper face of the projection. Neill teaches a projection with a recess (Fig. 4). Specifically, Neill teaches a recess (col. 3, lines 17-19, 27) which acts to cause a uniform flow of material throughout the projection, improving the strength of the projection (col. 3, lines 48-63). It would be obvious to employ a recess as taught by Neill into the projection disclosed by Uchibori as modified by Kost in order to increase the strength of the projection. Additionally, Uchibori does not disclose a recess with an outer diameter of about 50 percent of an outer diameter of the projection and a depth of 10-15 percent of the diameter of the projection. Neill teaches a recess in accordance with these limitations (Figs. 4, 6-7 and 9).

Response to Arguments

Applicant's arguments filed June 16, 2009 have been fully considered but they are not persuasive. To begin, Applicant argues that the Neill patent fails to teach the limitation of a cone-shaped recess that remains after being crushed. To substantiate this conclusion, applicant makes the observation that in the Neill patent the "entire conical recess is crushed and completely deformed to a different size and shape when crushed," therefore failing to capture the remain-a-portion-of-the-cone-shaped-recess limitation of independent claims 1 and 5. Examiner has two responses. First, noting that the applicant concedes that the Neill patent possesses a conical recess (Remarks,

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p. 6), Examiner argues that the wording of the limitation in question calls only for an unshaped, and possibly infinitesimal, "portion" of the cone shaped recess to remain after being crushed. There being no size or shape constraints on the remaining portion whatsoever, "portions" clearly remain in the Neill patent as depicted in Figures 6-7 and 9 (see area near 40 in Fig. 6, for example). Secondly, even if, *arguendo*, the conical recess which Applicant refers to (assumedly 40 or 18) completely disappears after crushing, Examiner cites another cone-shaped recess, 32, which, although a frustum, is nevertheless cone-shaped and which remains in the projection after the projection is crushed (Figs. 4, 6-7 and 9). Applicant finally argues for specific size constraints for the recess. However, as mentioned in the proceeding office action, the Neill patent depicts a recess (26) which is in conformity with Applicant's size limitations (Figs. 4, 6-7 and 9).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN ZOLLINGER whose telephone number is 571-270-7815. The examiner can normally be reached on Monday - Thursday, 9 a.m. - 4 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Z./
Examiner, Art Unit 3746

/Devon C Kramer/
Supervisory Patent Examiner, Art
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